

Notice of Allowability**Application No.**

10/840,175

Examiner

BELIX M. ORTIZ

Applicant(s)

BAMBA ET AL.

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a preliminary amendment 2/10/2006.
2. ☒ The allowed claim(s) is/are 17-29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 5/6/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 9/26/08
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Charles Rones/
Supervisory Patent Examiner, Art Unit 2164

DETAILED ACTION

EXAMINER'S AMENDMENT

1. The following is an Examiner's statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose, make obvious, or otherwise suggest the structure of the applicant's prediction program, prediction apparatus, and prediction method together with the other limitations of the independent claims.

The dependent claims being further limiting and definite are also allowable. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Authorization for this examiner's amendment was given in an interview with Mohammad S. Rahman on September 26, 2008.

AMENDMENT TO THE CLAIMS:

Claims 17, 23, 25, and 27-29 and abstract have been amended. Claims 17-29 remain pending in the application.

WHAT IS CLAIMED IS:

17. (Currently Amended) A computer implemented method for determining...

23. (Currently Amended) A computer implemented method for determining...

25. (Currently Amended) A computer implemented method for determining...

27. (Currently Amended) A system for determining importance of semantic web resources, said resources being either a class or a non-class resource, and each non-class

resource belonging to one or more classes, and each class resource being a subclass of one or more parent classes, the system comprising:

processor configured to ~~means for~~ determining a subjectivity score for each resource of a set of resources based on a number of Resource Description Format (RDF) triples of which said resource is a subject of and predefined weights of the properties of said triples;

processor configured to ~~means for~~ determining an objectivity score for each said resource based on the number of RDF triples of which the resource is an object of and predefined weights of properties of the triples;

processor configured to ~~means for~~ determining an importance of a class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the parents of said classes; and

processor configured to ~~means for~~ determining an importance of a non-class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the classes to which the resource belongs.

28. (Currently Amended) A system for determining path associations between two semantic web resources, said resources being either a class or a non-class resource, and each non-class resource belonging to one or more classes, and each class resource being a subclass of one or more parent classes, said semantic web being represented as a first directed graph and resources are nodes in the graph, and properties of said semantic web are links between nodes, said system comprising:

processor configured to ~~means for~~ determining a subjectivity score for each resource of a

set of resources based on a predefined weight of each said link;

processor configured to ~~means for~~ determining an objectivity score for each said resource based on the predefined weight of each said link;

processor configured to ~~means for~~ determining an importance of a class resource from said subjectivity score and objectivity score, and a factor relating to an importance of parents of said classes;

processor configured to ~~means for~~ determining importance of a non-class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the classes to which the resource belongs;

processor configured to ~~means for~~ determining path associations between semantic web resources by an existence of direct paths between respective nodes in said first directed graph;
and

processor configured to ~~means for~~ iteratively filtering said first directed graph by an importance of the nodes to determine paths in order of importance of vertices in the path.

29. (Currently Amended) A system for determining join associations between two semantic web resources, said resources being either a class or a non-class resource, and each non-class resource belonging to one or more classes, and each class resource being a subclass of one or more parent classes, said semantic web being represented as a first directed graph and resources are nodes in the graph, and properties of said semantic web are links between nodes, said system comprising:

processor configured to ~~means for~~ determining a subjectivity score for each resource of a

set of resources based on a predefined weight of each said link;

processor configured to ~~means for~~ determining an objectivity score for each said resource based on the predefined weight of each said link;

processor configured to ~~means for~~ determining an importance of a class resource from said subjectivity score and objectivity score, and a factor relating to an importance of parents of said classes;

processor configured to ~~means for~~ determining an importance of a non-class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the classes to which the resource belongs;

processor configured to ~~means for~~ determining join associations between two semantic web by an existence of paths from the nodes in the directed graph to a common end node or by an existence of paths to the nodes in the directed graph from a common start node; and

processor configured to ~~means for~~ iteratively filtering the said first directed graph by an importance of a resource representing said nodes to determine paths in order of importance of vertices in the path.

Reasons for Allowance

2. Claims 17-29 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter: the prior arts of records, neither anticipates nor renders obvious the following limitations as claimed:

As to claims 17, 22, and 27, the prior art of records fail to anticipate or suggest a computer implemented method, a computer program product and a system for determining importance of semantic web resources, said resources being either a class or a non-class resource, and each non-class resource belonging to one or more classes, and each class resource being a subclass of one or more parent classes, the method comprising:

determining a subjectivity score for each resource of a set of resources based on a number of Resource Description Format (RDF) triples of which said resource is a subject of and predefined weights of the properties of said triples;

determining an objectivity score for each said resource based on the number of RDF triples of which the resource is an object of and predefined weights of properties of the triples;

determining an importance of a class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the parents of said classes; and

determining an importance of a non-class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the classes to which the resource belongs, together with the other limitations of the dependent claims.

As to claims 23, 24, and 28, the prior art of records fail to anticipate or suggest a computer implemented method, a computer program product and a system for determining path associations between two semantic web resources, said resources being either a class or a non-class resource, and each non-class resource belonging to one or more classes, and each class resource being a subclass of one or more parent classes, said semantic web being represented as

a first directed graph and resources are nodes in the graph, and properties of said semantic web are links between nodes, said method comprising:

determining importance of a non-class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the classes to which the resource belongs;

determining path associations between semantic web resources by an existence of direct paths between respective nodes in said first directed graph; and

iteratively filtering the said first directed graph by an importance of the nodes to determine paths in order of importance of vertices in the path, together with the other limitations of the dependent claims.

As to claims 25, 26, and 29, the prior art of records fail to anticipate or suggest a computer implemented method, a computer program product and a system A method for determining join associations between two semantic web resources, said resources being either a class or a non-class resource, and each non-class resource belonging to one or more classes, and each class resource being a subclass of one or more parent classes, said semantic web being represented as a first directed graph and resources are nodes in the graph, and properties of said semantic web are links between nodes, said method comprising:

determining an importance of a non-class resource from said subjectivity score and objectivity score, and a factor relating to an importance of the classes to which the resource belongs;

determining join associations between two semantic web by an existence of paths

from the nodes in the directed graph to a common end node or by an existence of paths to the nodes in the directed graph from a common start node; and

iteratively filtering said first directed graph by an importance of a resource representing said nodes to determine paths in order of importance of vertices in the path.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belix M. Ortiz whose telephone number is (571)-272-4081. The examiner can normally be reached on monday-friday 9am-5pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bmo

September 26, 2008

/Charles Rones/

Supervisory Patent Examiner, Art Unit 2164